CA1 EP 865

1978, 1984



Sportfishing in Canada

CA1 EP 865

1978, 1984



Sportfishing in Canada

Boat Ownership and Use

Table 6 gives characteristics of the estimated 1.8 million pleasure craft. owned and operated by resident anglers and their families, which were used for sportfishing purposes. Although anglers fish from all types of craft ranging from canoes and sailboats to cabin cruisers, the most popular boat is the outboard. They account for 42% of all craft, and some 40% of the over 2 billion dollar total 1975 market value of these assets. Most outboards are used principally in freshwater, with half their recreational time devoted to sportfishing.

Table 6. Recreational boat ownership, market value, and use by resident

| Boat Type | Number | 1975 market value (\$'000) | Days recreation use ('000) | Days freshwater sportfishing ('000) | Days saltwater sportfishing ('000) | fishing days to total days |
|------------------|-----------|-------------------------------------|-------------------------------------|--|---|----------------------------------|
| Rowboat | 178 188 | 50 058 | 4 160 | 1 935 | 192 | 52 |
| Inboard-outboard | 54 485 | 314 499 | 2 610 | 614 | 290 | 35 |
| Outboard | 781 147 | 862 056 | 24 804 | 10 949 | 1 177 | 49 |
| Canoe | 414 153 | 114 824 | 9 688 | 3 739 | 41 | 39 |
| Inboard | 38 633 | 170 016 | 1 820 | 221 | 162 | 21 |
| Sailboat | 112 320 | 312 456 | 2 751 | 82 | 54 | 5 |
| Others | 262 181 | 315 528 | 6 828 | 3 046 | 485 | 52 |
| Canada total | 1 841 107 | 2 139 437 | 52 661 | 20 586 | 2 401 | 44 |

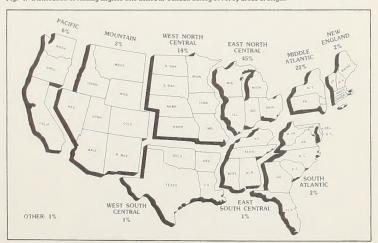
Origins of Visiting Anglers

As illustrated in Figure 4, 45% of the anglers from the United States come from the East North Central group

of states. When combined with the Middle Atlantic states of New York, New and the population densities involved. Jersey and Pennsylvania, it is not surprising that this overall area accounts for 67% of the American angler traffic, given

the proximity to the Canadian border.

Fig. 4. Distribution of visiting anglers who fished in Canada during 1975, by areas of origin.



Perspectives for the Future

Justre that the presence of game fish in clean waters adds to the quality of life of all Canadians, the 1975 survey demonstrates that recreational fishing in Canada is significant in terms of the numbers of participants, the time devoted, the food value of the catch, and various key aspects of its economic impact, for example, in terms of tourism revenues. An activity participated in by nearly one out of every four Canadians well as to the anglers directly concerned. Because of their nature and scope, sport fisheries are a matter of primary interest to all those involved in policy and program formulation related to regional development, industrial strategies, opportunities for native employment, the protection and enhancement of the aquatic ecosystem, and the contributions being made in the areas of physical and mental well-being. The framework of socio-economic and biological information provided by the survey should also

enable improved assessments to be made of fisheries performance and In addition to angler enjoyment and the potential by all levels of decisionmakers. Any gains through improved understanding and management should. of course, accrue to all Canadians in their respective capacities as anglers and/or owners of the resource. The 1975 Survey of Sportfishing is the writing to:

first of such surveys scheduled to be carried out at five-year intervals. It is expected that each province, as well as the federal government, will continue to develop complementary information is a matter of interest to all Canadians, as during the inter-survey years. The extent and usefulness of the information generated is a reflection of the support and assistance of provincial sport fisheries management and licensing agencies. Several provinces, which were already in the process of organizing and conducting their own surveys, adjusted their survey timing and content so as to enable national aggregation and comparability in data. Above all, tribute has to be paid to the anglers whose willingness to provide information made this undertaking a success.

A more detailed publication containing survey results and analyses of the data is now being prepared for release in 1978. It will be followed by technical publications describing and evaluating the methodology used in the survey. Further information relative to this, or future surveys, may be obtained by

> The Director Recreational Fisheries Branch Fisheries and Marine Service Department of Fisheries and the Environment OTTAWA, ONTARIO K1A 0E6



This bulletin is a periodic publication produced by the Information Branch of the Fisheries and Marine Service. Fisheries and Environment Canada. It is intended to provide information on the socio-economic aspects of sportfishing in Canada and on the related conservation, management and development of recreational fisheries. Reader comment and enquiries should be directed to:

"Sportfishing in Canada" Information Branch Fisheries and Marine Service Fisheries and Environment Canada OTTAWA, ONTARIO KIA 0E6

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Environment Canada Environnement Canada

Pêches et



HIGHLIGHTS: Survey of Sportfishing in Canada

Early in 1976, approximately 50,000 questionnaires were distributed by mail to anglers. Information was sought with respect to their sportfishing activities in Canada during 1975. Highlights of some major findings are outlined, although ongoing statistical analyses may necessitate a revision of data in this publication.

Purpose and Organization

The survey was organized and coordinated by Fisheries and Environment Canada to provide a framework of information regarding the size and importance of Canada's sport fisheries. I was made possible through the full support and participation of Canada's sport fisheries licensing and management agencies. It was the most comprehensive survey of its kind and the first devoted exclusively to compiling information on Canada's recreational fisheries.

To obtain commonly agreed upon data, plus other information sought by several of the cooperating agencies, 13 10 provincial fisheries agencies and by the regional offices of Fisheries and Environment Canada. Out of 50,000 questionnaires issued, approximately 30,000 were returned by anglers who sportfished in Canada in 1975. In the majority of cases, anglers names and addresses were selected from fishing

licences. However, in jurisdictions like

Ontario where there is no requirement for a resident angler licence, the questionnaires went to a selection of households. Coverage of anglers within National Parks and the east coast tidal fisheries was limited to those individuals who also fished in one of the other jurisdictions or areas surveyed. Statistical ferences, the representatives of all proinformation in this bulletin is based on being defined as individuals who purchased an angling licence, or those anglers 16 years and over, in jurisdictions without resident licensing.

In order to ensure comparability, returned questionnaires were processed and, with two exceptions, analysed by the Recreational Fisheries Branch of Fisheries and Environment Canada. Cooperating provincial and federal agencies have received summaries of their respective survey results, while highlights of national totals are presented herein.

Survey Background

The impetus for the survey can be traced Close to one in every four Canadians separate surveys were conducted by the back to the first Federal-Provincial Conference on Fisheries Development in 1964, which directed the attention of all governments to the growing socioeconomic significance of sportfishing. This led to the 1965 Symposium on the Economic Aspects of Sportfishing, where it became obvious that there was total angler numbers. little statistical information about sport fisheries at the national level. The need

to develop such data emerged as the first priority when federal and provincial sport fisheries resource managers met for the first time in 1970 to examine matters of common concern respecting recreational fishing. At that and subsequent Canadian Sport Fisheries Convinces and territories offered their supresponses from adult anglers, with adults port, and recommended that the federal fisheries authorities take the lead in the development of comprehensive and timely data on the scope and importance of sportfishing in Canada.

The tables and commentary that follow contain major survey results. Included is an outline of participation in sportfishing in Canada, angler effort as distributed seasonally, catch by species, expenditures and major purchases made in pursuit of this activity, origin of nonresidents, and information on ownership and use of pleasure craft for sportfishing.

Angler Numbers and Effort

fished in 1975, and every sixth angler was a visitor to this country. Table 1 shows 5.4 million Canadians and over one million non-Canadians fished in Canada during 1975. Anglers under 16, and those under the legal licensing age in certain provinces, made up 27% of

The percentage of male and female adult anglers is shown in Fig. 1. Visitors. including those Canadians who fished outside their home province, made up 19% of the total angler population, and accounted for 11% of the total effort as measured in angler days. This effort ranged from fly-fishing for shad on Nova Scotia's Stewiacke river, to trolling for the prized "muskies" of Ontario's Kawartha Lakes. In fact, whether the focus is on the approximately 500 big game fishermen who fulfilled a lifelong ambition by landing an east coast giant bluefin tuna, or on the thousands of children who gather part of the yearly spawning run of capelin on Newfoundland beaches, an impressive characteristic of these statistics is the variety of forms to which this activity lends itself.

Table 1. Angler participation

| | | Nonresident | | |
|---------------------------------------|----------------------|-----------------------|--------------------|------------------------|
| | Resident | Canadian ³ | Other | Total |
| Adults ¹ Male Female | 2 866 100 860 000 | 94 200 22 000 | 682 700 153 200 | 3 643 000 1 035 200 |
| Total | 3 726 100 | 116 200 | 835 900 | 4 678 200 |
| Children ² Both sexes | 1 513 600 | 39 700 | 211 700 | 1 765 000 |
| Canada total | 5 239 700 | 155 900 | 1 047 600 | 6 443 200 |

Individuals who purchased an angler licence in a province/territory, or were anglers 16 years and older in jurisdictions without resident licence requirements. This group provides the basis for the statistical information presented in this bulletin. 2 Individuals under legal licensing age when same is required by a jurisdiction, or under 16 years of

Fig. 1. Sex composition of (A) resident anglers (B) nonresident anglers.

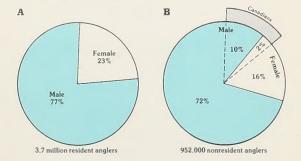
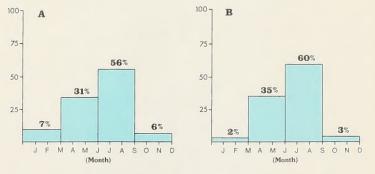


Table 2 details the almost 75 million days spent sportfishing by season, for resident and nonresident anglers. The 42 million angler days spent (all or part of a day fished) between July and September represent 56% of all annual effort and reflect the summer orientation of this activity. For some, the angling day was one or two hours of relaxed fishing after a day's work while for others, it was a dawn to dusk vigil on a remote stream casting hundreds of times for an elusive and wary prev. The seasonal nature of fishing by resident and nonresident anglers is graphically represented in Flg. 2.

Table 2. Angler effort by season (in '000 angler days)

| | | Nonre | esident | |
|---|--|--------------------------------|--------------------------------------|--|
| | Resident | Canadian | Other | Total |
| January-March April-June July-September October-December | 4 809.9 20 556.3 37 020.9 3 913.2 | 27.1 342.9 750.2 41.6 | 119,9 2 642.0 4 303.4 233.8 | 4 956.9 23 541.2 42 074.5 4 188.6 |
| Canada totai | 66 300.3 | 1 161.8 | 7 299.1 | 74 761.2 |

Fig. 2. (A) Resident angler effort by season. (B) nonresident angler effort by season.



The variety of angling opportunity is enormous. Fishing smelt through the ice on a cold clear February afternoon. spearfishing in ocean waters during the warm summer months, and wetting-aline off a pier in a city harbour, are all components of one of Canada's most popular outdoor experiences sportfishing.

Catch of Fish

Table 3 lists the top sixteen species of fish landed by anglers. Atlantic cod and mackerel, a significant part of the east coast tidal sport fisheries, are underrepresented because of the limited survev of anglers who fished these waters. Species are ranked in order of total numbers of fish caught and retained by anglers. The first four species accounted for over half the total. However, the diversity represented in the total catch of over 225 million fish is indicative of the great appeal of sportfishing to people of all ages, to all regions of the country, and to all levels of skill at the sport.

Though every angler has his or her view of what constitutes good fishing and the most desired species, it is not necessarily success with the more abundant species, but rather the catch of an Atlantic or Pacific salmon, a steelhead. an Arctic char, a muskellunge, or a bluefin tuna that is more likely to be recounted again and again, and embellished with each retelling, in the universal tradition of the fishing yarn. There is little doubt that the foregoing are among

Table 3. Numbers of fish caught and retained, by species (in '000).

| Fish Species | Resident | All non- residents | Total |
|---|----------|-----------------------|---------|
| Yellow perch (Perca flavescens) | 37 413 | 5 898 | 43 311 |
| Brook trout (Salvelinus fontinalis) | 37 628 | 801 | 38 429 |
| Walleye (Stizostedion vitreum) | 14 664 | 6 797 | 21 461 |
| Northern pike (Esox lucius) | 12 305 | 3 990 | 16 295 |
| Catfish (fctalurus nebulosus) | 7 924 | 143 | 8 067 |
| Smallmouth bass (Micropterus dolomieui) | 6 366 | 1 489 | 7 855 |
| Rainbow trout (Salmo gairdneri) | 7 012 | 729 | 7 741 |
| Atlantic tomcod (Microgadus tomcod) | 6 309 | 4 | 6 309 |
| Lake trout (Salvelinus namaycush) | 5 638 | 648 | 6 286 |
| Atlantic cod (Gadus morhua) | 4 433 | 4 | 4 433 |
| Bass (unspecified) | 4 068 | 289 | 4 357 |
| Largemouth bass (Micropterus salmoldes) | 3 353 | 665 | 4 018 |
| Trout (unspecified) | 3 658 | 79 | 3 737 |
| Perch (unspecified) | 3 013 | 170 | 3 183 |
| Whitefish (unspecified) | 1 967 | 222 | 2 189 |
| Atlantic mackerel (Scomber scombrus) | 1 763 | 4 | 1 763 |
| Others 5 | 41 582 | 7 654 | 49 236 |
| Canada total | 199 096 | 29 574 | 228 670 |

⁴ Numbers caught and retained are not considered to be statistically reliable.

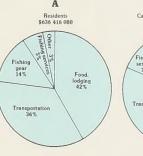
Canada's premier gamefish. Though relatively fewer of these fish are landed. much money and effort is expended in pursuit of these fighting fish, and they tend to be enveloped in a mystique that forms the basis of much of our fishing lore. The sport catch of these highly desired species include, for example, 467 000 Atlantic salmon, 1 221 000

coho and 503 000 chinook salmon. (excluding grilse, but including Pacific salmon from the Great Lakes) and 540 bluefin tuna. The latter weighed an average of 845 pounds when landed by rod and reel, a dramatic contrast with the more than 18 million smelt reportedly caught, each weighing two or three ounces.

Angler Expenditures

Sportfishing is big business! Table 4 categorizes the 900 million dollars spent by anglers during 1975 on goods and services directly related to sportfishing. These aggregated dollar totals tend to mask the diversity of items purchased. They range from novices' plastic bobbers to the ardent devotees' handfied flies: from the few gallons of fuel used to get to one's favourite local fishing spot to \$1000-a-week package excursions to the Arctic char fishing camps of Canada's northern waters. By far the most significant category was "food and lodging" which alone accounted for 42% of Canadians' and 60% of non-Canadians total expenditures. Figure 3 illustrates expenditures by anglers.

Fig. 3.



Annual Investment

In addition to direct expenditures, a number of major purchases were made by anglers to enable them to engage in sportfishing (Table 5). The most significant items are boats, recreational vehicles, cottages and other durable goods purchased by anglers and used in whole, or in part, for sportfishing, Boats and related equipment accounted for 39% of the near billion additional dollars spent this way by residents. Apart from identifuing the percentage of boat days used for fishing, the proportion of these expenditures attributable to sportfishing has not been calculated. Nevertheless, the amount of this type of investment in 1975 alone is an indication of the substantial investment maintaining the sport.

Table 4. Expenditures attributable to sportfishing (in '000 1975 dollars)

| | | Nonre | esident | |
|------------------|----------|----------|---------|---------|
| Expenditures | Resident | Canadian | Other | Total |
| Food and Lodging | 266 850 | 12 769 | 132 666 | 412 285 |
| Transportation | 230 103 | 7 689 | 56 804 | 294 596 |
| Fishing Services | 34 584 | 2 498 | 17 062 | 54 144 |
| Fishing Gear | 87 021 | 1 782 | 9 553 | 98 356 |
| Other | 17 858 | 894 | 14 339 | 33 091 |
| Canada total | 636 416 | 25 632 | 230 424 | 892 472 |

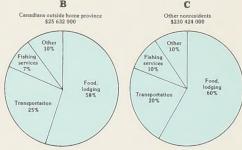


Table 5. Distribution of major purchases attributable (in whole, or in part) to

| Major purchases Total (\$'000) | Resident | Nonresident | | |
|---|---|---|---|--|
| | | Canadian | Other | Total |
| | 919 026 | 14 425 | 10 397 | 943 848 |
| | | Perc | ent | |
| Fishing equipment Boats and related equipment Camping equipment Special vehicles (ATV's, etc.) Land/buildings Other | 3,0 39,3 23,4 23,4 8,9 2,0 | 4,6 14,2 2,3 13,8 64,1 1,0 | 5,2 14,1 2,3 13,7 63,7 1,0 | 3,0 38,6 22,8 23,2 10,4 2,0 |
| Canada total | 100,0 | 100,0 | 100,0 | 100,0 |

age when no licence is required.

³ Canadians who fished in provinces/territories other than that of their residence.

⁵ Although retention of over 18 million rainbow smelt (Osmerus mordax) is included, the methods of catch and the size of the species is such that a relative comparison, for purposes of this table, is not meaningful.

BOAT AND GEAR OWNERSHIP

Table 7 gives characteristics of the estimated 1.3 million pleasure craft, owned and operated by resident anglers and their families outside Ouebec, which were used for sportfish from all types of crafts ranging from canoes to cabin cruisers, the most popular boat is the outboard. They account for 50% of all craft, and some 39.5% of the over \$3.1 billion total 1980 market value of these assets. Most outboards are used principally in freshwater, with half their recreational time devoted to sportfishing. Resident anglers were also asked to estimate the value of gear they owned. other than boats, which was used for fishing purposes. The total investment in 1980 was estimated to be an additional \$1.2 billion. Therefore, the total investment by anglers in boats and gear was \$4.3 billion.

Table 7: Recreation Boat Ownership, Market Value and Use by Resident Anglers1

| Boat Type | Number | 1980 Market Value (\$000's) | Days Recreation Use (\$000's) | Days Used for Sport- fishing (\$000's) | % Fishing Days to Total Days |
|----------------------|-----------|--------------------------------------|--|---|------------------------------------|
| Canoe | 322 400 | 146 698.8 | 6 382.9 | 2 466.3 | 38.6 |
| Rowboat | 142 500 | 83 888.3 | 3 007.5 | 1 575.3 | 52.4 |
| Outboard | 657 800 | 1 226 984.1 | 18 322.5 | 9 277.1 | 50.6 |
| Sailboat Inboard- | 57 800 | 474 083.5 | 1 706.9 | 340.8 | 20.0 |
| outboard | 61 200 | 638 332.9 | 2 410.8 | 1 215.6 | 50.4 |
| Inboard | 19 000 | 450 819.5 | 808.1 | 319.9 | 39.6 |
| Other | 45 100 | 85 983.7 | 1 044.8 | 542.4 | 51.9 |
| Total | 1 305 800 | 3106790.8 | 33 683.5 | 15 737.4 | 46.7 |

^{1.} Information not requested in Quebec survey

CONCLUSIONS

In addition to angler enjoyment and the lustre that the presence of game fish in clean waters adds to the quality of life for all Canadians, the 1980 survey demonstrates that recreational fishing in Canada is significant in terms of the numbers of participants, the time devoted, the food contribution of the catch, and various key aspects of its economic impact, for example, in terms of tourism revenues. The 1980 survey indicated that angling in Canada constituted a fishery of major fished, and of these, more than 1.1 million were nonresidents. In all, one in five Canadian residents fished at some time in 1980. Adult anglers fished a total of 73 million days, or about 15 days per angler, and they harvested over 153 million fish of all species weighing 78 million kilograms, or 161 million pounds. It is

almost 68 million kilograms were

consumed by anglers and their households.

In 1980, anglers spent \$1.1 billion on activities directly associated with sportfishing and invested a further \$1.3 billion on major durables and property. Of this \$2.4 billion in expenditures, it is estimated that over \$1.7 billion was directly attributable

to sportfishing in Canada. Because of their nature and scope. sport fisheries are a matter of primary interest to all those involved in policy and program formulation related to regional development, industrial strategies, opportunities for native employment, the protection and enhancement of the aquatic ecosystem, and the contributions being made in the areas of physical and mental well-being. The framework of socio-economic and biological information provided by the survey should also enable improved assessments to

potential by all levels of decision-

Any gains through improved understanding and management should, of course, accrue to all Canadians in their respective capacities as anglers and/or owners of the resource.

The 1980 Survey of Sportfishing is the second in this series of nationally coordinated surveys scheduled to be carried out at five-year intervals. It is expected that each province, as well as the federal government, will continue to develop complementary information during the inter-survey years. The extent and usefulness of the information generated is a reflection of the support and assistance of all provincial and territorial sport fisheries management and licensing

Above all, tribute has to be paid to the anglers whose willingness to provide information made this undertakbe made of fisheries performance and ing a success.

Surveys Group Statistics and Analysis Division Economic Development Directorate Department of Fisheries and Oceans Ottawa, Ontario K1A 0E6

This bulletin is a periodic publication produced by the Communications Directorate. If is intended to provide information on the soclo-economic aspects of sportfishing in Canada and on the related conservation. management and development of recreational fisheries. Reader comment and enquiries should be directed to:

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Minister of Supply and Services

Sportfishing in Canada, 1980 Survey Highlights

agencies and by several of the regional

Approximately 85 000 questionnaires were distributed by mail to anglers early in 1981. Information was asked from anglers on their sportfishing activities in Canada during 1980. Highlights of some major findings are outlined in this publication.

OCT 4 - 1984

EPOSITORY LIBRARY MATERIAL Fisheries Pêches and Oceans et Océans

PURPOSE AND

ORGANIZATION The survey was organized and coordinated by the federal Department of Fisheries and Oceans to provide a framework of information regarding the size and importance of Canada's sport fisheries. It was made possible through the support and participation of Canada's sport fisheries' licensing and management agencies. It was the most comprehensive survey of its kind and the second devoted exclusively to compiling information on

It should be noted that a parallel survey, using a different method, was carried out by the province of Quebec on fishing, hunting and non-consumptive uses of the resource in that province. While both the method and the coverage were different, results from the Ouebec survey have been wherever possible.

To obtain commonly agreed upon data, plus other information sought by several of the cooperating agencies. 12 separate surveys were conducted by the other nine provincial fisheries

offices of the Department of Fisheries and Oceans. Out of 85 000 questionnaires issued, approximately 52 000 were returned by anglers who sportfished in Canada in 1980. In the majority of cases, anglers' names and addresses were selected from fishing licenses. However, in jurisdictions like Ontario, where there is no license, the questionnaires were sent to a sample of households. Coverage of anglers within National Parks and the east coast tidal fisheries was limitin one of the other jurisdictions or areas surveyed. Statistical information in this bulletin is based on responses from adult anglers, with adults being defined as individuals who purchased an angling licence, or those anglers without resident licensing.

In order to ensure comparability, returned questionnaires were proand Oceans. Cooperating provincial and federal agencies received their final survey results in January, 1982. While highlights of Canada-wide summaries have been published by several of the cooperating jurisdic-

SURVEY BACKGROUND

The first of these nationally coordinated surveys was carried out in 1975.

The impetus for these five-year survevs can be traced back to the 1970's when federal and provincial sport fisheries resource managers met for the first time and agreed that the need to develop data on sport fisheries at the national level should be the first

Recreational fisheries management bulletin

At that meeting and subsequent the representatives of all provinces and territories offered their support. and recommended that the federal fisheries authorities take the lead in the development of comprehensive and timely data on the size and importance of sport fishing in Canada.

The tables and commentary that and are patterned on a similar report that was prepared for the 1975 survey. Included is an outline of participation in sportfishing in Canada, angler effort distributed seasonally, catch by species, expenditures and major purchases made in pursuit of this activity, and information on ownership and use of pleasure craft for sportfishing.

ANGLER NUMBERS AND EFFORT

Close to one in every five Canadians fished in 1980, and every sixth angler was a visitor to this country. Table I shows 4.8 million Canadians and over one million non-Canadians fished in Canada during 1980, Also shown is the fact that almost a quarter of a



fish but for whatever reasons, did not participate in 1980.

Anglers under 16, and those under the legal licensing age in certain provinces accounted for almost 18% of total angler numbers, down from 27% in 1975. It is acknowledged that the number of anglers under 16 years of age is underestimated because the survey covered, for the most part, only those households with at least one adult angler. Visitors, including those 148 500 Canadians who fished outside their home provinces, made up 19% of the total angler population. and accounted for 11% of the total effort as measured in angler days. For non-Canadian anglers, the survey results showed that fishing was a major factor in their decision to come to Canada. They fished on over 81% that for over 70% of the trips, the main reason was sportfishing. Over one third of these anglers had fished in Canada in 1975 and over 50% had fished here in 1979. While these are impressive statistics, the fact that 50% of these anglers fished nowhere else in 1980 underlines the strong appeal of Canada's sport fisheries to nonresidents. As illustrated in Figure 1. 41% of the anglers from the United States come from the East North Central group of states. When combined with the Middle Atlantic states of New York, New Jersey and Pennsylvania, it is not surprising that this overall area accounts for 59% of the American angler traffic, given the proximity to the Canadian border.

Table 2 details the over 73 million days spent sportfishing by season, for resident and nonresident anglers. Included in the figures are over 4 million days spent fishing in tidal waters. particularly on the Pacific coast. The 62 million angler days spent (all or part of a day fished) between May and September represent 84.5% of all annual effort and reflect the summer orientation of this activity. Resident anglers fished an average of 16.5 days while nonresidents fished 8.7 days in 1980. The angling day is as diverse as the sport itself. For some, it may consist of an hour or so of relaxation after work at a nearby stream, while for others it is a dawn to dusk effort seeking a trophy-sized fish to highlight their trip to Canada. The variety enormous. Whether the opportunity

Table 1: Angler Participation

|) | Resident | Nonresident ⁴ | Total |
|--|------------------------|--------------------------|------------------------|
| Adults ¹ | 4 207 500 | 959 300 | 5 166 800 |
| Participants: Male: Female: | 2 784 900 1 182 400 | 778 500 147 000 | 3 563 400 1 329 400 |
| Total active adults ² | 3 967 300 | 925 500 | 4 892 800 |
| Other active anglers ³ | 846 700 | 208 400 | 1 055 100 |
| Total active anglers in Canada 1980 | 4 814 000 | 1 133 900 | 5 947 900 |

- 1. Individuals who purchased an angler licence in a province/territory, or were anglers 16 years and older in jurisdictions without resident licence requirements.
- 2. This group provides the basis for the statistical information presented in this bulletin.
- 3. Individuals not requiring a licence due to age when same is required by a jurisdiction, or under 16 years of age when no licence is required.
- 4. Includes Canadians who fished in provinces/territories other than their residence.

Fig. 1 Distribution of visiting anglers who fished in Canada during 1980 by areas of origin.



Table 2: Angler Days and Distribution by Review of the Vege

| Period of Year | Resident | Nonresident | Total |
|---------------------|------------|-------------|------------|
| January to April | 6 915 800 | 271 000 | 7 186 800 |
| % | 10.6 | 3.4 | 9.8 |
| May to September | 54 495 500 | 7 465 300 | 61 960 800 |
| % | 83.5 | 93.0 | 84.5 |
| October to December | 3 860 600 | 292 000 | 4 152 600 |
| % | 5.9 | 3.6 | 5.7 |
| Total days fished | 65 271 900 | 8 028 300 | 73 300 200 |
| Average/angler | 16.5 | 8.7 | 15.0 |

focuses on the remote Arctic charfisheries, the Atlantic salmon fisheries of eastern Canada, ice-fishing for smelt or simply fishing from a local dock, they are all components of one of Canada's most popular outdoor activities - sportfishing.

CATCH OF FISH

Table 3 lists the top species of fish landed by anglers outside Quebec. Atlantic cod and mackerel, a significant part of the east coast tidal sport fisheries, are under-represented because of the limited survey of anglers who fished these waters. Species are presented in terms of total numbers of fish caught and retained by anglers. For all anglers the top species in Canada in terms of preference are walleye and pickerel (Table 4). They accounted for 13% of all fish landed in 1980, only exceeded in numbers by the more abundant perch and smelt. There is, however, a strong regional influence in species preference. In our northern waters of the Yukon and Northwest Territories, the lake trout is the species preferred by a majority of anglers, in British Columbia, rainbow trout, and, in the Atlantic provinces, brook trout. However, the diversity represented in the total catch of over 153 million fish is indicative of the great appeal of sportfishing to people of all ages, to all regions of the country, and to all levels of skill at the sport.

Though every angler has his or her veiw of what constitutes good fishing and the most desired species, it is not necessarily success with the more abundant species, but rather the catch of Atlantic or Pacific salmon, a steelhead, or a muskellunge that is more likely to be the highlight of any angler's fishing experience. There is little doubt that the foregoing are among Canada's premier gamelish. Though relatively fewer of these fish are landed, much money and effort is expended in pursuit of these fighting fish, and they tend to be enveloped in a mystique that forms the basis of much of our fishing lore. The sport catch of these highly desired species include, for example, 189 000 Atlantic salmon, 1 250 000 coho and 736 000 chinook salmon (excluding grilse, but including Pacific salmon from the Great Lakes) and almost 42 000 Arctic char.

Anglers were asked to estimate the

Table 3: Number of Fish Caught and Retained by Species, Total Weight and Amount Eaten (000's)1

| Species | Resident | Nonresident | Total |
|------------------------------|-----------|-------------|-----------|
| Arctic Char | 33.4 | 8.2 | 41.6 |
| Arctic grayling | 259.0 | 80.1 | 339.1 |
| Bass — total | 7 727.1 | 2 659.9 | 10 387.0 |
| Bass | 3 999.4 | 1 223.9 | 5 223.3 |
| Smallmouth bass | 2 572.5 | 1 041.1 | 3 613.6 |
| Largemouth bass | 1 155.2 | 394.9 | 1 550.1 |
| Cod | 924.8 | 6.8 | 931.6 |
| Mackerel | 538.2 | 8.1 | 546.3 |
| Northern Pike | 8 702.2 | 3 462.0 | 12 164.2 |
| Perch | 22 125.0 | 5 604.7 | 27 729.7 |
| Salmon — total | 3 847.6 | 260.0 | 4 107.6 |
| Atlantic | 172.0 | 16.6 | 188.6 |
| Chinook | 730.7 | 5.5 | 736.2 |
| Coho | 1 232.9 | 17.6 | 1 250.5 |
| Kokanee | 1 227.4 | 212.1 | 1 439.5 |
| Landlocked | 127.3 | 7.0 | 134.3 |
| Other salmon | 357.3 | 1.2 | 358.5 |
| Smelt | 25 893.5 | 2 760.3 | 28 653.8 |
| Trout — total | 26 624.0 | 1 606.9 | 28 230.9 |
| Brook | 14 666.7 | 344.5 | 15 011.2 |
| Lake | 1 887.1 | 374.0 | 2 261.1 |
| Rainbow | 6 713.9 | 725.3 | 7 439.2 |
| Other trout | 3 356.3 | 163.1 | 3 519.4 |
| Walleye/pickerel | 13 135.4 | 6 922.9 | 20 058.3 |
| Whitefish | 1 936.2 | 222.3 | 2 158.5 |
| Other species | 14 184.9 | 4 109.5 | 18 294.4 |
| TOTAL | 125 931.3 | 27 711.7 | 153 643.0 |
| Average/angler | 31.7 | 29.9 | 31.4 |
| Weight of fish retained (kg) | 56 146.7 | 17 023.9 | 73 170.6 |
| Weight of fish eaten (kg) | 49 221.5 | 13 765.5 | 62 987.0 |

^{1.} Information not requested in Quebec survey.

Table 4: Species Preference Distribution¹

| Species | Resident | Nonresident | All Anglers |
|------------------|----------|-------------|-------------|
| Walleye/pickerel | 24.1 | 37.5 | 27.4 |
| Northern pike | 8.4 | 21.3 | 11.5 |
| Trout - general | 13.0 | 4.7 | 11.0 |
| Bass - general | 10.7 | 7.5 | 9.9 |
| Rainbow trout | 9.8 | 5.1 | 8.7 |
| Brook trout | 7.1 | 1.7 | 5.8 |
| Lake trout | 5.4 | 6.0 | 5.5 |
| Perch | 5.6 | 3.9 | 5.2 |
| Salmon — general | 4.2 | 0.8 | 3.4 |
| Other species | 11.7 | 11.5 | 11.6 |
| All species | 100.0 | 100.0 | 100.0 |

^{1.} Information not requested in Quebec survey.

weight of the fish they retained as well as the amount eaten.

Residents kept over 56 million kilograms (124 million pounds) of fish of which they ate over 87%, or 49 million kilograms (108.5 million pounds).

Nonresident anglers ate almost 81% of the estimated 17 million kilograms (37.5 million pounds) landed. The weight of fish they retained tended to be higher on average than that retained by residents.

EXPENDITURES AND INVESTMENT

Sportfishing is big business! Table 5 categorizes the \$1.1 billion spent by anglers during 1980 on goods and services directly related to sportfishing. These aggregated dollar totals tend to mask the diversity of items purchased. For example, over 18% of the \$287 million spent by nonresidents was for package deals, principally to northern lodges. Of the \$322 million spent by residents for transportation, over one-third was for costs incurred through the use of household-owned boats for sportfishing activity. By far the most significant category overall was "food and lodging" which alone accounted for 39% of residents' and 56% of nonresidents' total expenditures.

In addition to direct expenditures. major purchases were also made by anglers to enable them to engage in sportfishing (Table 6). The most significant items are boats, recreational vehicles, cottages and other durable goods purchased by anglers and used in whole, or in part, for sportfishing. Boats and related of the nearly 1.2 billion additional dollars spent this way by residents. For nonresidents, the emphasis was on investment in land and buildings. mainly cottages, which accounted for 46% of their \$30.4 million expenditure. In all but two jurisdictions. anglers were asked to estimate what proportion of their investment was for sportfishing purposes. The estimates of 51.6% and 33.5% for residents and nonresidents respectively. when applied to all investments, show that investment dollars directly attributable to sportfishing are over \$650 million. If we add this to the \$1.1 billion in direct expenditures.

Table 5: Direct Expenditures Attributable to Sportfishing (in 000's 1980 dollars)

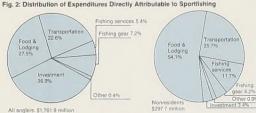
| Expenditures | Resident | Nonresident | Total |
|--------------------|-----------|-------------|-------------|
| Food and lodging % | 322 542.1 | 161 082.8 | 483 624.9 |
| | 39.2 | 56.0 | 43.5 |
| Transportation % | 322 180.0 | 76 367.5 | 398 547.5 |
| | 39.1 | 26.6 | 35.8 |
| Fishing Services | 59 411.1 | 34 871.3 | 94 282.4 |
| % | 7.2 | 12.1 | 8.5 |
| Fishing Gear | 114 744.8 | 12 575.5 | 127 320.3 |
| | 13.9 | 4.4 | 11.5 |
| Other | 4 863.1 | 2 586.5 | 7 449.6 |
| % | 0.6 | 0.9 | 0.7 |
| TOTAL | 823 741.1 | 287 483.6 | 1 111 224.7 |
| Average/angler | 207.63 | 310.63 | 227.11 |

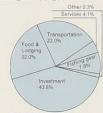
Table 6: Value and Distribution of Investments Made in Whole or in Part for Sportfishing (in 000's 1980 dollars)

| Major Purchase Category | Resident | Nonresident | Total | | | | |
|---|--|---|--|---------------------|------------------|------------------|------------------|
| Fishing equipment % Boating equipment % Camping equipment % Special vehicles % | 33 181.8 2.7 604 611.0 48.7 175 963.5 14.2 294 984.0 23.8 | 1 676.2 5.5 6 231.3 20.5 4 537.1 14.9 3 065.4 10.1 | 34 858.0 2.7 610 842.3 48.0 180 500.6 14.2 298 049.4 23.5 | | | | |
| | | | | Land-buildings % | 107 460.4 8.6 | 14 009.7 46.1 | 121 470.1 9.6 |
| | | | | Other % | 24 828.0 2.0 | 858.7 2.8 | 25 686.7 2.0 |
| | | | | TOTAL | 1 241 028.7 | 30 378.4 | 1 271 407.1 |
| Average/angler | 312.81 | 32.82 | 259.85 | | | | |
| Percentage attributable to sportfishing | 51.6 | 33.5 | 47.9 | | | | |
| Value attributable | 640 474.1 | 10 189.8 | 650 663.9 | | | | |

the survey results indicate that anglers spent over \$1.7 billion in 1980 which

was directly attributable to their





Residents: \$1.464.2 million



